FRITZ!WLAN Repeater 310

Installation and Operation

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Symbols and Highlighting

Symbols and emphasized text are used to designate certain information in this manual.

Symbols

This symbol designates hints and tips that are useful in operating your product.

This symbol indicates important instructions that must be observed to avoid malfunctions.

Highlighting

Highlighting	Function	Examples
Quotation marks	Buttons	“Help”
	Menus	“System / “Info” Display”
Blue and underlined text	Address to be entered in the web browser	fritz.repeater
Blue text	Links and references within this manual	For instructions on connecting the FRITZ!WLAN Repeater with your WLAN base station, see page 10.

1 Getting to Know FRITZ!WLAN Repeater 310

This chapter presents a quick overview of the various functions of your FRITZ!WLAN Repeater 310.

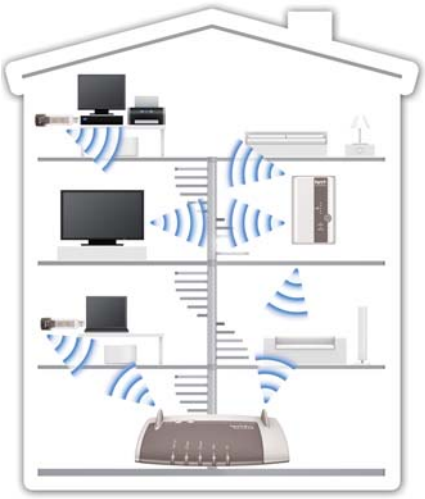
1.1 FRITZ!WLAN Repeater 310

The FRITZ!WLAN Repeater extends the range of the radio network of your FRITZ!Box or of another WLAN base station simply and securely.

A WLAN base station connects multiple WLAN devices (for instance computers, printer, TV, media receiver) with each other and with the Internet.

You connect the FRITZ!WLAN Repeater with the WLAN base station over a wireless radio network. Then you register computers and other wireless network devices located outside the range of the wireless base station with the FRITZ!WLAN Repeater.

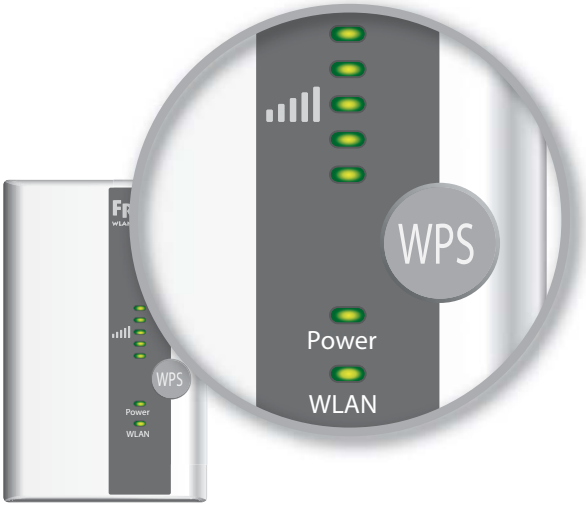
Via the FRITZ!WLAN Repeater the wireless network devices have access to the radio network and to the wireless LAN base station's Internet connection.



FRITZ!WLAN Repeater 310 in a radio network

1.2 Button and LEDs

The FRITZ!WLAN Repeater has a button and various LEDs on the front panel.



LEDs and button

Button

The following functions are operated using the button:

Function	Press for at Least
Switch wireless LAN on and off	1 second
Initiate WPS quick connection	6 seconds
Reset the repeater to factory settings	15 seconds

LEDs

LED	Condition	Meaning
	flashing	No connection with WLAN base station or searching for WLAN base station
	up to 5 LEDs are lit up	The more LEDs are lit up, the stronger the signal of the WLAN radio connection between the WLAN base station and the FRITZ!WLAN Repeater
Power	flashing	• FRITZ!WLAN Repeater starts • Updating the firmware of the FRITZ!WLAN Repeater
	on	FRITZ!WLAN Repeater is ready for operation
WLAN	flashing	• FRITZ!WLAN Repeater adopts WLAN settings • Switching WLAN radio network on or off • Performing WPS
	flashing rapidly	WPS procedure was aborted: More than two WLAN devices are performing WPS at the same time. Repeat the procedure.
	on	The WLAN module of the FRITZ!WLAN Repeater is ready for operation
All	flashing	Factory settings are loaded

1.3 Package Contents

- FRITZ!WLAN Repeater 310
- one printed quick guide

2 Before You Connect the FRITZ!WLAN Repeater

Read this chapter before connecting the FRITZ!WLAN Repeater to the power supply and the WLAN base station.

2.1 Operation Requirements

In order to operate the FRITZ!WLAN Repeater 310, you must have the following:

- Your WLAN base station (WLAN access point) must support the IEEE 802.11n, 802.11g or 802.11b standard in the 2.4-GHz range.
- The WLAN base station must support automatic IP address assignment (DHCP).
- The WLAN base station must support forwarding of IP-based protocols/Address Resolution Protocol.
- For the first configuration of the WLAN: The SSID (radio network name) must be set to “visible” and the MAC address filter must be disabled. For a FRITZ!Box both settings are configured upon delivery.
- For WPS functionality: a WPS-compliant WLAN base station with up-to-date firmware
- For the first configuration of WLAN without WPS: WLAN client that supports the WPA or WPA2 encryption standard
- For the first configuration of WLAN using the Installation Wizard: Microsoft Windows 8, Windows 7, Windows Vista or Windows XP (Service Pack 3 or higher), Internet access

2.2 Security and Handling

When working with the FRITZ!WLAN Repeater, be sure to observe the following security instructions in order to protect yourself and the FRITZ!WLAN Repeater from harm.

- Never let liquids get inside the FRITZ!WLAN Repeater. Otherwise, electric shocks or short circuits may result.
- The FRITZ!WLAN Repeater is intended for indoor use only.
- Do not open the FRITZ!WLAN Repeater housing. The device contains hazardous components and should only be opened by authorized repair technicians.
- Do not install the FRITZ!WLAN Repeater during an electrical storm.
- Disconnect the FRITZ!WLAN Repeater from the power supply during electrical storms.
- Insert the FRITZ!WLAN Repeater in a socket in a dry location that is free of dust and protected from direct sunlight.
- Make sure to keep sufficient distance from potential sources of interference like microwave devices or electric devices with large metal housings, and from radiators.

3 Connecting FRITZ!WLAN Repeater with a Base Station

This chapter describes how to connect the FRITZ!WLAN Repeater with your FRITZ!Box or with another wireless LAN base station via a wireless radio network.

You can also register two or more FRITZ!WLAN Repeaters with your FRITZ!Box.

3.1 Establishing a Connection Using WPS

Using WPS (Wi-Fi Protected Setup), you can establish quickly and easily a secure WLAN connection. You can use WPS if the following prerequisites are met:

Prerequisites

- The WLAN base station must support WPS.

  The latest FRITZ!Box models support WPS.

- WPS must be enabled in the WLAN base station.

  WPS is enabled upon delivery in the latest FRITZ!Box models. In older FRITZ!Box models, enable the WPS method in the user interface under “WLAN / Security / WPS Quick Connection”.

- The WLAN base station must support the WPA or WPA2 encryption standard.

- The SSID (radio network name) of the WLAN base station must be set to “visible” (announced). The SSID of a FRITZ!Box is visible upon delivery.

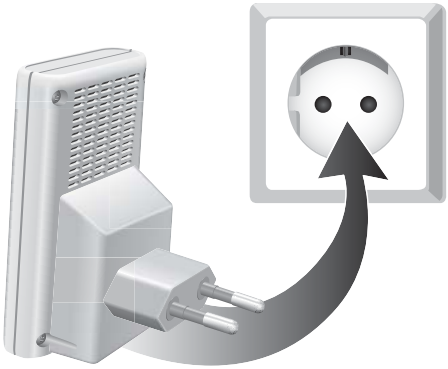
- If a MAC address filter is active in your WLAN base station, the MAC address of the FRITZ!WLAN Repeater must be entered there as an exception. You can also disable the MAC address filter until the connection to the FRITZ!WLAN Repeater is established.

Connecting FRITZ!WLAN Repeater via WPS with FRITZ!Box

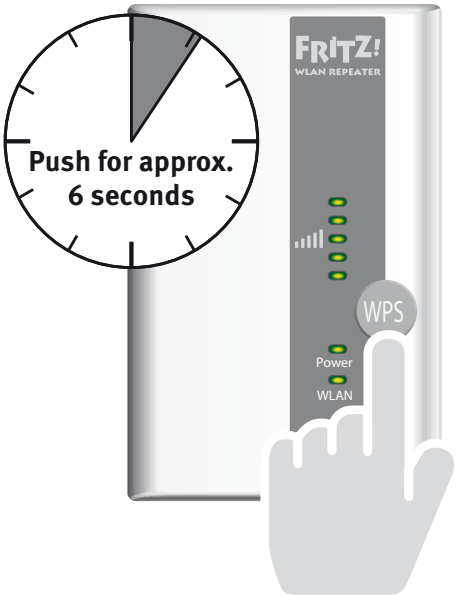
This section describes how to connect the FRITZ!WLAN Repeater with a FRITZ!Box using WPS.

You can also connect the FRITZ!WLAN Repeater with any other WLAN base station that supports WPS as described below. In this case, please also take note of the instruction in the documentation of your WLAN base station.

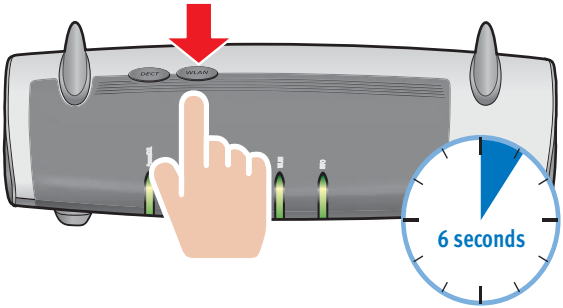
1. Connect the FRITZ!WLAN Repeater to an electrical outlet in the vicinity of the FRITZ!Box.



2. Press the “WPS” button on the FRITZ!WLAN Repeater. Hold the button down until the “WLAN” LED begins flashing. This takes about 6 seconds.



3. Now press the “WLAN” button on the FRITZ!Box within the next two minutes. Hold the “WLAN” button down until the “WLAN” LED of the FRITZ!Box begins flashing. This takes about 6 seconds.



The connection between the FRITZ!WLAN Repeater and the FRITZ!Box has been established when the LEDs that display the strength of the wireless radio signal stop flashing and remain lit.

The FRITZ!WLAN Repeater is preconfigured so that the radio network name (SSID) and WLAN key of the FRITZ!Box are adopted automatically upon connection with the FRITZ!Box.

To find out how to extend the range of your WLAN radio network with the FRITZ!WLAN Repeater, continue reading from page 16.

For information about how to adjust the settings of the FRITZ!WLAN Repeater using the user interface, continue reading from page 18.

3.2 Establishing a Connection Using the Online Wizard

If your WLAN base station doesn’t support WPS, you can connect the FRITZ!WLAN Repeater with your WLAN base station using the online wizard.

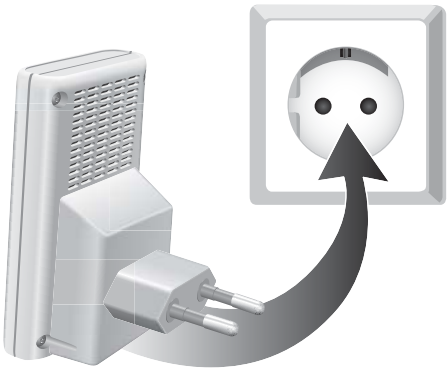
Start the online wizard on your computer. You can use the online wizard if the following prerequisites are met:

Requirements

- Windows 7, Windows Vista or Windows XP with Service Pack 3 or higher must be installed on your computer.
- The computer must have access to the Internet.
- The SSID (radio network name) of the WLAN base station must be set to “visible” (announced). The SSID of a FRITZ!Box is visible upon delivery.
- If a MAC address filter is active in your WLAN base station, the MAC address of the FRITZ!WLAN Repeater must be entered there as an exception. You can also disable the MAC address filter until the connection to the FRITZ!WLAN Repeater is established.

Connecting FRITZ!WLAN Repeater with FRITZ!Box

1. Connect the FRITZ!WLAN Repeater to an electrical outlet in the vicinity of the FRITZ!Box.



2. Start a web browser on your computer.
3. Enter www.avm.de/en/repeater in the address field of the browser.
4. Save the FRITZ!WLAN Repeater 310 online wizard on your computer.
5. Start the online wizard by double-clicking the executable “.exe” file.
6. Follow the instructions.

A secure WLAN connection is being established between the FRITZ!WLAN Repeater and the FRITZ!Box.

The FRITZ!WLAN Repeater is preconfigured so that the radio network name (SSID) and WLAN key of the FRITZ!Box are adopted automatically upon connection with the FRITZ!Box.

To find out how to extend the range of your WLAN radio network with the FRITZ!WLAN Repeater, continue reading from page 16.

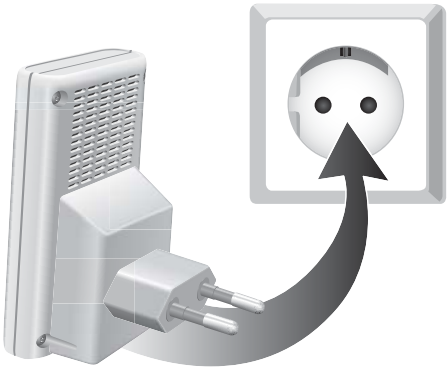
For information about how to adjust the settings of the FRITZ!WLAN Repeater using the user interface, continue reading from page 18.

3.3 Establishing a Connection Manually

Using this method, you can connect the FRITZ!WLAN Repeater with your WLAN base station even if the WLAN base station doesn't support WPS and you cannot use the online wizard.

Connecting FRITZ!WLAN Repeater with a Computer

1. Connect the FRITZ!WLAN Repeater to an electrical outlet in the vicinity of the FRITZ!Box.



2. Use the computer's WLAN software to establish a wireless connection between the computer and FRITZ!WLAN Repeater. Select WPA or WPA2 as encryption method and enter the key 00000000 (8 zeros, the value preset in the FRITZ!WLAN Repeater).

Starting the Configuration Wizard

1. Start a web browser on the computer that is connected with your FRITZ!WLAN Repeater.
2. Enter fritz.repeater in the address line of the browser.
3. The FRITZ!WLAN Repeater Configuration Wizard is started. Click “Next” and follow the instructions.

A secure WLAN connection is being established between the FRITZ!WLAN Repeater and the FRITZ!Box.

The FRITZ!WLAN Repeater is preconfigured so that the radio network name (SSID) and WLAN key of the FRITZ!Box are adopted automatically upon connection with the FRITZ!Box.

To find out how to extend the range of your WLAN radio network with the FRITZ!WLAN Repeater, continue reading from page 16.

For information about how to adjust the settings of the FRITZ!WLAN Repeater using the user interface, continue reading from page 18.

4 Extending the Range of the WLAN Radio Network

This chapter describes how to extend the range of your WLAN radio network using the FRITZ!WLAN Repeater.

4.1 Prerequisite: Connection with a Wireless LAN Base Station

The FRITZ!WLAN Repeater must be connected with your WLAN base station.

For instructions on connecting the FRITZ!WLAN Repeater with your WLAN base station, see the chapter Connecting FRITZ!WLAN Repeater with a Base Station from page 10.

4.2 Choosing the Best Location for the FRITZ!WLAN Repeater

Choose an appropriate location and plug the FRITZ!WLAN Repeater into an electrical outlet there.

The WLAN connection to your WLAN base station is re-established automatically after connecting the repeater to the outlet. The settings of the FRITZ!WLAN Repeater remain intact if you disconnect the device from the power mains.

Please note the following when choosing a location:

- The best location is halfway between your WLAN base station and the devices the FRITZ!WLAN Repeater should integrate into your wireless network.

  If there is no electrical outlet at this location, test different other locations.

- The LEDs display the quality of the radio signal the FRITZ!WLAN Repeater receives from the WLAN base station. The better the received radio signal, the better the radio signal sent by the FRITZ!WLAN Repeater.

- Make sure to keep sufficient distance from potential sources of interference like microwave devices, electric devices with large metal housings, radiators or walls.

4.3 Integrating WLAN Devices into the Wireless Network

FRITZ!WLAN Repeater WLAN Settings

The FRITZ!WLAN Repeater is preconfigured so that the radio network name (SSID) and WLAN key of the WLAN base station are adopted automatically upon connection with the WLAN base station.

This means your FRITZ!WLAN Repeater can be reached in the WLAN radio network with the same radio network name (SSID) as your WLAN base station (for instance, FRITZ!Box).

Establishing a WLAN Connection

1. Open the WLAN software of your computer or of another WLAN device.
2. Search for WLAN devices in your vicinity.
3. Select the SSID (radio network name) of your WLAN base station from the list of WLAN devices found.

   If the WLAN device is located within the range of the WLAN base station and within the range of the FRITZ!WLAN Repeater, the SSID of the WLAN base station will appear twice in the search results of some wireless devices. Select either of the SSIDs. Your computer will automatically connect with the WLAN device that has the stronger signal.
4. Establish the WLAN connection.

As soon as the WLAN connection has been established, the WLAN device receives access to the radio network and to the Internet connection of the WLAN base station.

5 The User Interface of the FRITZ!WLAN Repeater

The FRITZ!WLAN Repeater has a user interface you can open in a web browser on your computer.

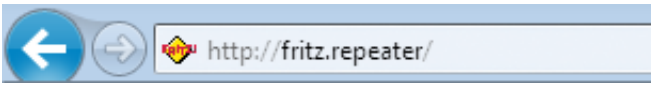
In the user interface, you can edit the FRITZ!WLAN Repeater's settings, enable or disable features and perform firmware updates.

Detailed descriptions of and instructions for settings and features of the FRITZ!WLAN Repeater are presented in the user interface's Online Help.

5.1 Opening the User Interface

The user interface can be opened on every computer connected with the FRITZ!WLAN Repeater or the WLAN base station.

1. Start a web browser on your computer.
2. Enter fritz.repeater in the address field of the browser.



The user interface is displayed.

If the user interface is not displayed, please see the instructions in the section The User Interface Is Not Displayed on page 20.

5.2 Protecting the User Interface with a Password

You can protect the user interface with a password. The password will be requested every time the user interface is opened. This protects the settings of your FRITZ!WLAN Repeater from unauthorized access.

We strongly recommend setting up and using password protection for the user interface.

Setting Up Password Protection

As long as no password protection has been set up, every time you open the user interface you will be prompted to enter a password. If you disabled this message, here is how to set password protection:

1. Open the FRITZ!WLAN Repeater user interface.
2. Switch to the “System / Password” menu.
3. Enter a password and save the password by clicking “Apply”.

Password protection is now enabled.

Logging Off the User Interface

When password protection is enabled, you can log off the user interface at any time. To do so, click Log off .

If you do not click on the user interface for a period of longer than ten minutes, you will be logged off automatically. The only pages excepted from this are those which are constantly updated, like the “Overview” page. No automatic logout will take place on these pages.

5.3 Performing a Firmware Update

AVM provides updates of the firmware for the FRITZ!WLAN Repeater for free downloading over the Internet. The firmware is the software that controls all of the FRITZ!WLAN Repeater’s functions.

1. Open the FRITZ!WLAN Repeater user interface.
2. Click “Wizards” and start the “Update Firmware” Wizard.

   The Wizard checks whether new firmware is available for your FRITZ!WLAN Repeater.

   If a new firmware is available, the Wizard displays the version number of the firmware. Click the link to view information about the firmware. Read this information before starting the firmware update.
3. To transfer new firmware to the FRITZ!WLAN Repeater, click “Start Firmware Update Now”.

   The firmware update begins and the “Power” LED on the FRITZ!WLAN Repeater starts flashing.

Do not interrupt the power supply to the FRITZ!WLAN Repeater during the firmware update!

The firmware update is complete when the “Power” LED stops flashing.

6 Help in Case of Errors

6.1 LEDs Not On

The LEDs on the FRITZ!WLAN Repeater do not light up.

Cause

The FRITZ!WLAN Repeater has no electricity.

Help

- Make sure that the FRITZ!WLAN Repeater is connected to electrical power.
- Make sure that the electrical outlet is active. Test this by plugging another functioning electrical device into this outlet.

Cause

The display on the FRITZ!WLAN Repeater was switched off completely.

Help

Open the user interface of the FRITZ!WLAN Repeater in the web browser (see page 18). In the “System / Display” menu, enable the “Always show status information” option and click “Apply” to save the setting.

6.2 The User Interface Is Not Displayed

The user interface of the FRITZ!WLAN Repeater is not displayed in the web browser.

Cause

The user interface of the FRITZ!WLAN Repeater cannot be reached under the address “fritz.repeater”.

Help

Open the network overview of your WLAN base station. Note the IP address listed there for your FRITZ!WLAN Repeater. Enter this IP address in the address line of your browser.

6.3 No Connection with the WLAN Base Station

Cannot establish a WLAN connection between the FRITZ!WLAN Repeater and your WLAN base station.

Cause

The FRITZ!WLAN Repeater is located outside the WLAN range of your base station.

Help

Reduce the distance between the two devices. Connect the FRITZ!WLAN Repeater to an outlet in another location.

Cause

The WLAN function of your WLAN base station is disabled.

Help

Enable the WLAN function.

Cause

You are attempting to register the FRITZ!WLAN Repeater at your WLAN base station using WDS (Wireless Distribution System).

Help

The FRITZ!WLAN Repeater does not support WDS. For instructions on connecting the FRITZ!WLAN Repeater with your WLAN base station, see the chapter Connecting FRITZ!WLAN Repeater with a Base Station on page 10.

Cause

Another WLAN radio network in the vicinity is causing interference.

Help

Test a different radio channel. If possible, set automatic radio channel selection in the WLAN base station.

6.4 No WLAN Connection with a Computer

No WLAN connection can be established between the FRITZ!WLAN Repeater and a computer.

Cause

The computer's WLAN adapter is not ready for operation.

Help

On some notebooks the WLAN adapter must be activated by flipping a switch on the notebook. Make sure that the WLAN adapter is switched on.

Cause

The computer is located beyond the WLAN range of the FRITZ!WLAN Repeater.

Help

Reduce the distance between your computer and the FRITZ!WLAN Repeater.

Cause

The FRITZ!WLAN Repeater is not yet connected with the WLAN base station.

Help

Connect the FRITZ!WLAN Repeater with your WLAN base station (see Connecting FRITZ!WLAN Repeater with a Base Station from page 10).

Cause

The encryption method set in the FRITZ!WLAN Repeater is different from the one in your computer's WLAN software.

Help

Set the same encryption method in your computer's WLAN software as in the FRITZ!WLAN Repeater. To find out which encryption method is set in the FRITZ!WLAN Repeater, check the user interface (page 18).

For connections to the WLAN base station the FRITZ!WLAN Repeater applies the encryption method and WLAN key of the base station. If the connection was established using WPS, the base station has WPA/WPA2 encryption configured.

Cause

Only for use of WLAN Services (WZC: Windows Zero Configuration) in Windows XP with Service Pack 2: The Microsoft patch for WPA2 (IEEE 802.11i) is not installed.

Help

Install Service Pack 3.

Cause

Another WLAN radio network in the vicinity of the FRITZ!WLAN Repeater and the WLAN base station is causing interference.

Help

Test a different radio channel. If possible, set automatic radio channel selection in the WLAN base station. Your FRITZ!WLAN Repeater then will use the same channel automatically.

6.5 Throughput Too Slow for WLAN N

A WLAN device (for instance, a computer) connected with the FRITZ!WLAN Repeater should use the 802.11n (WLAN N) standard for high data transmission speeds. The throughput achieved by this device is too low for WLAN N.

Cause

In the FRITZ!WLAN Repeater, in the WLAN base station, or in both devices, an encryption method other than WPA2 has been configured.

Help

The 802.11n WLAN standard can be used only with the encryption method WPA2. Set the WLAN base station and the FRITZ!WLAN Repeater to WPA2.

You can also use the 802.11n WLAN standard in non-encrypted (open) WLAN networks. However, an open WLAN radio network is a security risk. Therefore we strongly recommend encrypting all WLAN radio networks!

6.6 Cannot Access Devices in the Network

No other devices in the network can be accessed.

Cause

A firewall is running on the devices.

Help

Configure the firewall to allow access to the network.

Cause

The devices are not configured to receive their IP addresses automatically.

Help

Set up the devices as directed in the section Obtaining an IP Address Automatically from page 25.

Cause
The devices are not bound to TCP/IP.
Help
Check the network connection of the network adapter in the device in question. See the documentation of your operating system for more information.

Obtaining an IP Address Automatically

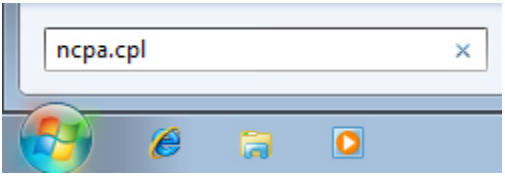
This section describes how to set automatic IP address assignment in the computers in the network.

Obtaining an IP Address Automatically in Windows

1. Open the network connections:

   Windows 7 and **Windows Vista**: Click “Start”, enter “ncpa.cpl” in the search line of the start menu, and press “Enter”.

   Windows XP: Select “Start / Run”, enter “ncpa.cpl” and then click “OK”.



Entering “ncpa.cpl” in Windows 7

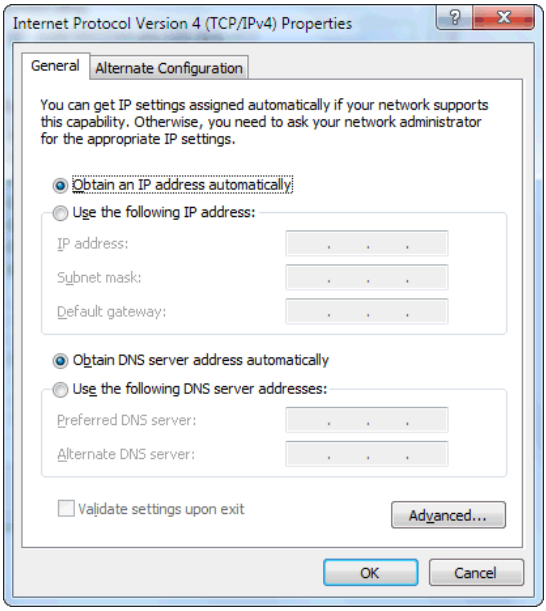
2. Click the network connection of the computer with the right mouse button and select “Properties”.

   Windows 7 and **Windows Vista**: Under “This connection uses the following items”, select “Internet Protocol Version 4 (TCP/IPv4)”.

   Windows XP: Under “This connection uses the following items”, select “Internet Protocol (TCP/IP)”.

3. Click the “Properties” button.

4. On the “General” tab, enable the options “Obtain an IP address automatically” and “Obtain DNS server address automatically”.


Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

5. Click “OK” to save the settings.

6. Only in **Windows 7** and **Windows Vista**: Enable the options “Obtain an IPv6 address automatically” and “Obtain DNS server address automatically” for the “Internet Protocol Version 6 (TCP/IPv6)” as well.

Now the computer receives an IP address from the WLAN base station.

Obtaining an IP Address Automatically in Mac OS X

1. Select the “System Preferences...” in the Apple menu.
2. In the “System Preferences” window, click the “Network” icon.
3. In the “Network” window, select the “Built-in Ethernet” entry from the list. Click the “Advanced...” button.
4. Click the “Advanced...” button. The “TCP/IP” settings page opens. Select the “Using DHCP” option from the “Configure IPv4:” drop-down list.
5. Click “OK”.

Now the computer receives an IP address from the WLAN base station.

7 Technical Specifications

7.1 Physical Specifications

- Dimensions (W x D x H): ca. 51.5 x 66.5 x 81 mm
- Supply voltage: 230 V / 50 Hz
- Total power consumption: ca. 3 W
- Weight: ca. 63 g
- Antennas: two dual-band antennas, integrated
- WLAN: IEEE 802.11n, compatible with IEEE 802.11g/b
- WLAN: WEP 64/128, WPA, WPA2 (802.11i)
- WLAN: 2.4 GHz max. 100 mW
- WLAN: transmission rate up to 300 Mbit/s (gross); the user data rate that can actually be achieved is somewhat below this value
- Operating temperature: 0 °C to +40 °C

7.2 User Interface and Display

- Configuration and status messages in a web browser on a connected computer
- “WPS” button to control WLAN, WPS and restore settings
- LED display for information on the connection, activity and status

8 Customer Service Guide

AVM is there to help should any questions or problems arise. Here you will find the important information you need, in the form of frequently asked questions (FAQs), manuals, updates and support.

8.1 Documentation on the FRITZ!WLAN Repeater

Help in the User Interface

In the user interface of the FRITZ!WLAN Repeater, click the “Help” buttons to view detailed information on the settings and features of the FRITZ!WLAN Repeater.

Manual

The manual can be opened and downloaded from the Internet at the following address:

avm.de/en/service/manuals

The current Adobe Reader for reading PDF documents can be downloaded from the Internet free of charge at adobe.com.

8.2 Information in the Internet

On its web site AVM presents comprehensive information on your AVM products as well as new product announcements and new product versions.

AVM Knowledge Base

We would like to make our products as easy to use as possible. If you still have problems, sometimes you need just a tip to resolve them.

In our AVM knowledge base you find immediately help and answers to your questions in easy dialogs. In a guided navigation we provide for customized solutions. You find the AVM knowledge base on the AVM Internet pages in the “Service” area:

service.avm.de/support/en/skb

8.3 Support from the Support Team

Should problems with your FRITZ!WLAN Repeater arise, we recommend taking the following steps:

1. If you have any problems, seek first aid by consulting the chapter Help in Case of Errors from page 20.

   This chapter also presents tips on problems with establishing connections.

2. Read our tips from the AVM Knowledge Base in the “Service” area.

   service.avm.de/support/en/skb

   This site contains answers to questions our customers have frequently asked our Support team.

Please take advantage of the information sources described above before contacting AVM support.

Support by E-mail

You can send us an English-language e-mail request at any time using the “Service” area of our web site. The “Service” area can be reached at:

avm.de/en/service

1. Select the product group and your product for which you need support from the “Support” area.

   You will receive a selection of FAQs.

2. If you need more help, click the “Contact support” button to open the e-mail support form.

3. Fill out the form and send it to AVM by clicking the “Submit support request”.

Our Support team will respond by e-mail as quickly as possible.

Manufacturer's Warranty

We offer a manufacturer's warranty of 5 years on the hardware of this original product. The warranty period begins with the purchase date from the first end user. Compliance with the warranty period can be proven by submission of the original invoice or comparable documents. This warranty does not restrict your warranty rights based on the contract of sale or other statutory rights.

Within the warranty period, we will remove defects to the product which are demonstrably due to faults in materials or manufacturing. Our warranty does not cover defects which occur due to incorrect installation, improper use, non-observance of instructions in the user manual, normal wear and tear or defects in the environment of the system (third-party hardware or software). We may, at our discretion, repair or replace the defective product. Claims other than the right to the removal of defects which is mentioned in these terms of warranty are not constituted.

We guarantee that the software conforms with general specifications, not, however, that the software meets your individual requirements. Delivery costs will not be reimbursed. Products which have been replaced revert to our ownership. Claims recognized under warranty entail neither an extension or recommencement of the warranty period. If we reject a warranty claim, this claim lapses no later than six months after being rejected by us.

This warranty shall be governed by German substantive law, to the exclusion of the United Nations Convention on Contracts for the International Sale of Goods (CISG).

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The information in this documentation and the software are subject to change without notice for the purpose of technical improvement.

We offer a manufacturer's warranty for this original product. The warranty conditions are presented from page 31 of this manual.

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Declaration of CE Conformity

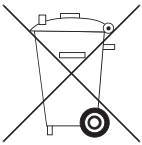
AVM declares herewith that the device is compliant with the basic requirements and the relevant rules in directives 1999/5/EC or 2004/108/EC and 2006/95/EC, 2009/125/EC and 2011/65/EU.

The declaration of CE conformity is available at http://en.avm.de/ce.

Disposal Information

In accordance with European regulations, the FRITZ!WLAN Repeater 310, as well as all devices and electronic components contained in the package, may **not** be disposed with household waste.

Please bring FRITZ!WLAN Repeater 310 to a collection point in your local community for the disposal of electric and electronic appliances after use.



Symbol for the separate collection of electric and electronic devices

Note the symbol for the separate collection of electric and electronic devices. FRITZ!WLAN Repeater 310 and the electronic parts included with delivery must be disposed of separately from household waste.

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